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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,442	09/26/2001	Ali Harlin	110486	3988

7590

02/27/2004

Oliff & Berridge  
PO Box 19928  
Alexandria, VA 22320

EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/914,442

Applicant(s)

HARLIN ET AL.

Examiner

Mark Eashoo, Ph.D.

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-112 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 28-08-01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Information Disclosure Statement*

The information disclosure statement filed 28-AUG-2001 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Accordingly, it has been placed in the application file and the information referred to therein has been considered as to the merits.

### *Claim Objections*

Claims 10-12 are objected to because of the following informalities:

Claim 10 contains a typo "dibutyltin dilaurate", which has been interpreted as -- dibutyl tin dilaurate --.

Claims 11 and 12 are objected to because they do not set forth an additional process step, but rather recite a statement of intended use. For the purpose of further examination, claim 11 has been interpreted as a step of forming the material onto a wire/cable as a coating by extrusion. Similarly, claim 12 has been interpreted as a step of forming the material into a hollow extrudate.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

Claims 1, 3, and 5-11 are rejected under 35 USC 102(b) as being anticipated by Hagger et al. (GB 2 202 537 A).

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Regarding claim 1: Hagger et al. teaches the claimed process of forming a polymer product cross-linked by silane (abstract) and controlling the cross-linking or grafting is controlled by the steps of: determining the concentrations of components affecting grafting, and based upon the results adjusting the amounts of materials fed to an extruder (2:1-3:24).

Regarding claim 3: Hagger et al. teaches determining the cross-linking degree (3:25-4:7).

Regarding claim 5: Hagger et al. teaches polyethylene (abstract).

Regarding claims 6 and 7: Hagger et al. teaches vinyl trimethoxy silane (example I).

Regarding claims 8 and 9: Hagger et al. teaches dicumyl peroxide (example I).

Regarding claim 10: Hagger et al. teaches dibutyl tin dilaurate (example I).

Regarding claim 11: Hagger et al. teaches a wire-covering crosshead or die (6:5) therefore, Hagger et al. anticipates wire coating.

### ***Claim Rejections - 35 USC § 103***

Claims 2 is rejected under 35 USC 103(a) as being unpatentable over Hagger et al. (GB 2 202 537 A) in view of with Wang et al. (US Pat. 6,107,405) when taken with Froidevaux et al. (US Pat. 5,714,187).

Regarding claim 2: Hagger et al. teaches the basic claimed process as set forth above.

Hagger et al. does not teach determining the degree of cross-linking by IR spectrometry. However, Wang et al. teaches determining the degree of cross-linking by IR spectrometry (6:27-50). Hagger et al. and Wang et al. are combinable because they are both concerned with a similar technical difficulty, namely, determining the degree of cross-linking by IR spectrometry. At the time of invention a person of ordinary skill in the art would have found it obvious to have determined the degree of cross-linking by IR spectrometry, as taught by Wang et al., in the process of Hagger et al., and would have been motivated to do so in order to control the quality of the formed product. The motivation for such combination is suggested by Froidevaux et al. which teaches use of an on-line infrared process control system that varies the feed composition to an extruded product (18:40-49 and 16:8-18).

Claims 12 is rejected under 35 USC 103(a) as being unpatentable over Hagger et al. (GB 2 202 537 A) in view of Takamasa et al. (EP 0 771 827 A2).

Regarding claim 12: Hagger et al. teaches the basic claimed process as set forth above.

Hagger et al. does not teach forming pipes. However, Takamasa et al. teaches hot water conduits or pipes (2:11). Hagger et al. and Takamasa et al. are combinable because they are from the same field of endeavor, namely, silane-modified polyolefins. At the time of invention a person of ordinary skill in the art would have found it obvious to have made hot water conduits or pipes, as taught by Takamasa et al., in the process of Hagger et al., and would have been motivated to do so in order to produce a commercially desired product (ie. a hot water conduit).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fritz et al. and Ortiz et al. teach the basic state of the art.

#### ***Allowable Subject Matter***

Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or render obvious determining the degree of cross-linking using a thermo-mechanical analyzer (TMA), wherein the TMA is directly measuring the extruder product "on-line" or while it is moving in the production line. It is understood that by applicant's disclosure that the "on line method" is not inclusive of the well known process/quality control regimen of taking a small sample from the product line, testing in a lab, and then readjusting the process parameters.

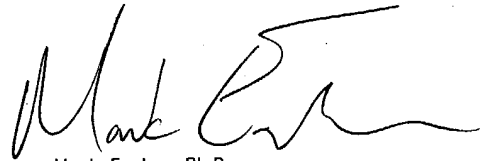
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*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.  
Primary Examiner  
Art Unit 1732

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